H1005

II. Executive Summary

The Committee for Sustainable Agriculture (CSA) proposes to present, in cooperation with the CALFED Bay-Delta Program and the US Bureau of Reclamation/US Forest Service, two (2) two-day agricultural conferences and field tours that will address conservation needs in the San Joaquin Basin for education in non-source watershed pollution from agricultural and livestock production in areas that are adjacent to or that impact the water quality, wildlife and habitats of the San Joaquin River and the Stanislaus, Merced and Tuolumne tributaries. These educational programs will bring together leading experts in the fields of agronomy, soil science, water resources management, integrated pest management, and habitat preservation to present information in environmentally sound agriculture to local growers, ranchers, agricultural advisors, and industry related businesses. The goal of these conferences is to provide educational tools that can be used to foster conservation of soil, water, wildlife, and related natural resources in these environmentally sensitive areas.

The objective of these two two-day conferences is to present agricultural best management practices to:

- improve soil quality and health
- reduce topsoil erosion and loss
- mitigate waterway aggradation caused by agriculturally induced sediment
- reduce off-site contaminants in waterways from irrigation of selenium-rich soils.
- reduce off-site impacts of pesticides, herbicides, and fertilizers on waterways and natural habitats
- reduce off-site impacts on waterways of nitrates and ammonia from livestock
- conserve and increase wildlife and habitat diversity

Each year, more than 5.8 million pounds of pesticides and herbicides are applied to agricultural ground in Stanislaus County (CDFA EPA Department of Pesticide Regulation. Pesticide Use Report. 1995). Thirteen pesticides have been detected in the San Joaquin River at levels reported to be toxic to invertebrates, with concentrations of diazinon, parathion, carbaryl, and carbofuran in excess of US EPA and CA Department of Fish and Game Hazard Assessment recommended criteria (Central Valley Regional Water Quality Control Board, Bioassay Reports, 1990 & 1995). Annually, Stanislaus, San Joaquin and Merced counties are impacted by 25% of California's estimated 55 billion pounds of livestock manure, with an estimated 20% of waterway pollution caused by livestock waste run off (Modesto Bee, Vol. 121, No. 152). Combined with fertilizer use on farmlands, these wastes are resulting in significantly increased levels of nitrates and ammonia in the San Joaquin watershed region.

Additionally, transported soil from agriculture induced erosion is impacting riparian and aquatic ecosystems through the aggredation of river channels and increases in sediment-borne selenium. These chemical and sediment stressors are negatively impacting sensitive species and their habitats. Agricultural best management practices that identify and develop alternative methods of pest control can reduce the use of chemical additives and slow soil erosion, thereby reducing nonpoint source contamination of waterways.Sustainable agricultural practices also incorporate solid waste management into fertilization practices that can mitigate the environmental hazards and reduce the costs of solid waste disposal.

Species identified as primarily impacted by these stressors are fall-run shinook salmon, spawning splittail, and migratory birds. Conservation concerns that will be addressed in these conferences are erosion-caused channel aggradation, decreased water quality through increased contaminants, salinity, and nutrients, loss of riparian systems and degradation of aquatic habitats and wildlife.

Executive Summary (cont.)
Two (2) two-day conferences and field tours are proposed. Although each conference may be considered and funded as an independent project, the degree of agricultural and grazing impacts on Stanislaus watersheds would indicate the need for a comprehensive, systems-wide approach that could be best served by presentations to two distinct geographic areas: a) The West Stanislaus conference will focus on management practices that mitigate the effects of livestock and dairy production on water quality, including discussions of land use, ground and surface water quality protection, waste discharge management, biological control of parasites and pests, management intensive grazing, use of manures on forage crops, erosion control, and easements and buffer zones. b) The East Stanislaus conference will present best management practices for both row crops and orchards that mitigate soil erosion and pollution from agricultural production, including tillage practices, cover cropping, water management, integrated pest management, easements, and buffer zones.

CSA's conference and field tour methodology employs comprehensive farmer/scientist focus sessions that combine systematic workshops and panel discussions with farm tours and in-field presentations. Workshops include expert presentations and facilitated discussions that allow participants to explore state-of-the-art material and research on agricultural conservation technologies. Farm field sessions encourage an exchange of applied knowledge and practical experience between growers and conference participants. and provide a direct forum for peer counseling and strategizing. Evaluations of CSA conferences are performed through peer review in the following methods; a) demographic evaluation, b) evaluation of conference content, c) conference resourcing, d) outreach through media coverage.

The initial cooperative planning for these conferences and field tours will be held with local working groups in September and October. Actual conference production will start November 1, 1998. Both conferences and field tours have a four month production cycle and will be convened in February, 1999. Funding disbursement of $28,000 will be requested at the completion of the project

The Committee for Sustainable Agriculture (CSA) is a non-profit 501(c)3 organization that promotes environmentally sound farming practices. Since its founding in 1980 CSA has been a leader in presenting agricultural information and practices that preserve natural resources and protect human health and the environment.

CSA has produced sustainable conferences and field tours in Stanislaus County for two years. The 1997 Sustainable Livestock and Dairy Conference and Field Tour was a pioneer project to address environmental, health and economic issues relating to livestock and dairy production. It was produced in cooperation with Modesto Junior College, and local dairyman, and featured UC Davis, UCCE, UC SAREP, and CCOF presenters. The 1998 Soil Fertility and Integrated Pest Management Conference and Field Tours were produced in cooperation with the US Environmental Agency Solid Waste Management Program, UC SAREP, the CA Integrated Waste Management Board, and Modesto Junior College. CSA has also produced conferences in the central valley for stone fruit, walnuts, almonds, and vegetable crops -- all of which are among Stanislaus County's leading commodities.

These conferences and field tours augment and enhance other ongoing educational and restoration programs by providing the latest research and techniques in sustainable agriculture. Programs that cohere to CSA's educational events include the US Environmental Agency Solid Waste Management Program, the California Integrated Waste Management Program, the USDA Eqip Program, and the Community Alliance with Family Farmers (CAFF) Lighthouse and BIOS Programs.